Great Harmeston Solar Farm

Green Infrastructure Statement

Development of National Significance
Pre-Application Consultation

March 2026

Green Infrastructure Statement

Great Harmeston Solar Farm

26th February 2025

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Tyler Grange

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Section 1: Introduction

1.1. This Green Infrastructure (GI) Statement has been prepared by Tyler Grange Group Ltd (TG) on behalf of ASUK HoldCo4 Ltd. (Arise Renewable Energy UK Ltd.) ("the Applicant") and relates to the Proposed Development at Great Harmeston Solar Farm, Pembrokeshire, SA62 3HL (the 'Site'). The Statement sets out the proposed green infrastructure measures and biodiversity enhancements associated with the Proposed Development and demonstrates how green infrastructure has been integrated into the scheme design from the outset.The indicative red line boundary is shown on **Figure 1.1**.

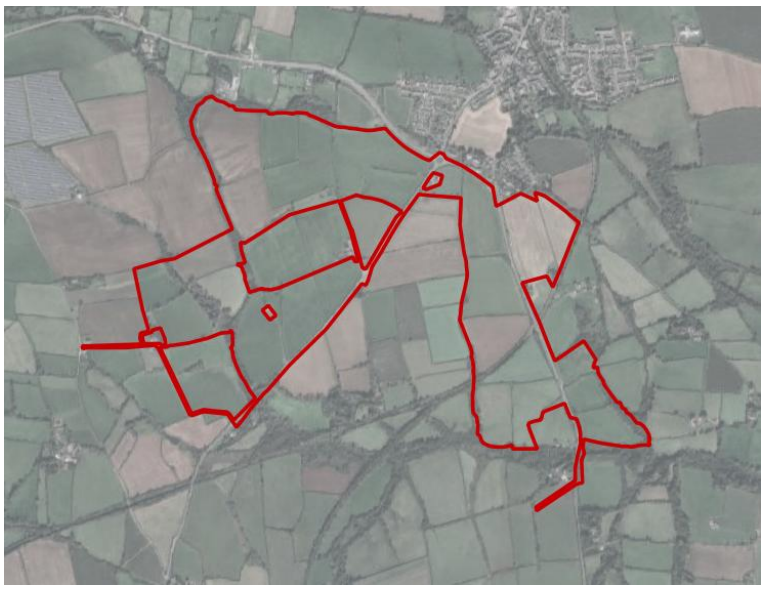

Figure 1.1. Indicative red line boundary

1.2. The boundary of the Proposed Development extends to approximately 128 ha across a number of land parcels and is segregated by two 'A' roads and a railway line. The Site comprises arable and modified grassland fields, Purple moor-grass and rush pasture, other neutral grassland, broadleaved woodland, ponds and boundary features including hedgerows, hedgerows with trees, ditches and watercourses. The finalised red line boundary is shown on Figure 1.1.

Purpose, Legislation and Planning Policy

1.3. The purpose of this statement is to provide an overview of the existing habitats on site and their condition, potential development impacts (in absence of mitigation) and proposed biodiversity enhancements to ensure conformity specifically with the requirements of Planning Policy Wales[1] (PPW) on delivery of green infrastructure. Full ecological details can be found in the Ecological Impact Assessment (EcIA)[2] produced for the Proposed Development.

1.4. The statement has been produced in accordance with requirements outlined in Chapter 6 of PPW, which can be summarised as follows:

- **Green Infrastructure (GI)**: stronger emphasis on taking a proactive approach to GI, covering cross boundary considerations, with the submission of a proportionate GI statement with planning applications.
- **Net Benefit for Biodiversity and the Step-wise Approach:** further clarity is provided on securing net benefit for biodiversity through the application of the step-wise approach, including the acknowledgement of off-site compensation measures as a last resort, and, the need to consider enhancement and long-term management at each step. The use of the green infrastructure statement as a means of demonstrating the stepwise approach is made explicit.
- **Protection for Sites of Special Scientific Interest:** strengthened approach to the protection of SSSIs, with increased clarity on the position for site management and exemptions for minor development necessary to maintain a 'living landscape'.
- **Trees and Woodlands:** closer alignment with the stepwise approach, along with promoting new planting as part of development based on securing the right tree in the right place. It also specifies that where trees are lost to facilitate development "*Replacement planting shall be at a ratio equivalent to the quality, environmental and ecological importance of the tree(s) lost and this must be preferably onsite, or immediately adjacent to the site, and at a minimum ratio of at least 3 trees of a similar type and compensatory size planted for every 1 lost*"

1.5. As stated with para 6.2.12 of PPW 12, a green infrastructure statement should be submitted with all planning applications. These are to be "proportionate to the scale and nature of development proposed and will describe how green infrastructure has been incorporated into the proposal. In the case of minor development this will be a short description and should not be an onerous requirement for applicants. The green infrastructure statement will be an effective way of demonstrating multi-functional outcomes which are appropriate to the site in question and must be used for demonstrating how the step-wise approach has been applied".

1.6. The GI measures described within this Statement are illustrated on the Landscape Masterplan (See Appendix 1) and will be secured and delivered through the Construction

[1] Planning Policy Wales: Addressing the nature emergency through the planning system: update to Chapter 6 of Planning Policy Wales: https://www.gov.wales/sites/default/files/publications/2023-10/addressing-the-nature-emergency-through-the-planning-system.pdf
[2] Tyler Grange, Ecological Impact Assessment 18033 R01a

Environmental Management Plan (CEMP), Landscape and Ecological Management Plan (LEMP) and associated planting strategies.

Section 2: Site Baseline and Context

2.1. The Site lies within a rural agricultural landscape characterised by large arable fields, areas of modified, other neutral grassland and Purple moor-grass and rush pasture, together with a network of native hedgerows (including hedgerows with trees), broadleaved woodland blocks, ponds, ditches and watercourses. The Site forms part of a wider green infrastructure network within the local landscape, with ecological value and functional connectivity primarily associated with linear boundary habitats, woodland edges and the riparian corridor.

2.2. The Site comprises predominantly agricultural land extending across a series of fields bounded by hedgerows, woodland parcels and a watercourse. The Site and land immediately adjacent were subject to habitat surveys as part of the Environmental Statement, including an Extended Phase 1/UKHab survey, with full details of survey methodologies and results provided within ES Chapter 7: Ecology and Biodiversity and Technical Appendix 7.2: Habitat Survey Report.

2.3. The Site supports a range of green infrastructure assets which contribute to landscape connectivity, biodiversity value and ecosystem services. In accordance with CIEEM guidance, the following key features have been identified and assigned ecological importance:

2.4. Features of County Ecological Importance:

- Purple moor-grass and rush pasture (f2b), a Habitat of Principal Importance under Section 7 of the Environment (Wales) Act 2016; and
- Veteran trees (T84 and T85), recognised as irreplaceable habitat features of elevated ecological value.

2.5. Features of Local Ecological Importance:

- Lowland mixed deciduous woodland parcels (w1f), including riparian woodland;
- Native hedgerows (species-poor and species-rich), including hedgerows with trees;
- The on-site watercourses (r2b) and associated riparian corridor;
- Ponds (r1g);
- Other neutral grassland (g3c) where present.

2.6. The remaining habitats present within the site, which are considered to be of site to negligible ecological importance, include:

- Arable fields; and
- Modified grassland.

2.7. While the arable fields and modified grassland are of comparatively low intrinsic ecological value, they form part of the wider agricultural landscape mosaic and provide significant opportunities for green infrastructure enhancement. In contrast, the Purple moor-grass and rush pasture, woodland blocks, hedgerow network, ponds and riparian habitats represent the core ecological infrastructure of the Site and underpin functional connectivity across the surrounding landscape.

2.8. The hedgerow network varies in structure and condition, with some sections fragmented or species-poor as a result of historic agricultural management; however, collectively these linear features provide an important connected network linking woodland blocks, grassland margins, ponds and the watercourse.

2.9. Broadleaved woodland blocks, riparian woodland and scattered mature trees contribute significantly to landscape character, carbon storage, microclimate regulation and biodiversity value, while supporting a range of protected and priority species.

2.10. The on-site watercourse and associated riparian corridor represent a key linear green infrastructure feature, providing wildlife movement routes, aquatic habitat, natural flood management functions and wider ecosystem services.

2.11. Ecological surveys undertaken to inform the Environmental Statement identified that, while much of the Site comprises intensively managed arable fields and modified grassland, these habitats support notable use by farmland bird species. In particular, a locally important breeding assemblage of skylark, a Section 7 species under the Environment (Wales) Act 2016, was recorded within the Proposed Development footprint.

2.12. The wider green infrastructure network, including hedgerows, broadleaved woodland, ponds and the watercourse with its associated riparian corridor, provides higher-value habitat and functional connectivity for a range of protected and priority species. These features support foraging and commuting bat species (all listed as Section 7 species), nesting birds and mammals such as badger and otter, and underpin the ecological resilience and landscape-scale connectivity of the Site within the surrounding rural environment.

2.13. Invasive non-native species constraints include recorded stands of Japanese knotweed, which require appropriate management to prevent spread and to safeguard the integrity and long-term functionality of the green infrastructure network.

2.14. The Proposed Development comprises a ground-mounted solar photovoltaic scheme with associated infrastructure, including inverter stations, access tracks and security fencing, as described within the Environmental Statement and ES Briefing Note. In the absence of avoidance and mitigation, the Proposed Development has the potential to affect areas of agricultural land currently supporting a locally important breeding assemblage of skylark, as well as habitats used by other protected and priority species.

2.15. The Green Infrastructure strategy set out within this Statement seeks to address these potential effects through the retention and buffering of higher-value habitats, enhancement of lower-value agricultural land, targeted species-specific mitigation (including for skylark), and the delivery of long-term habitat management to strengthen ecological resilience and landscape connectivity.

Section 3: Net Benefit for Biodiversity and the Step-wise Approach

3.1. The Proposed Development has been designed in accordance with the Step-wise Approach set out within Planning Policy Wales Edition 12, seeking to avoid adverse effects on green infrastructure assets and ecological receptors wherever possible, minimise impacts where avoidance is not feasible, mitigate construction and operational effects through appropriate controls and management, and compensate for unavoidable habitat loss through targeted green infrastructure enhancement and habitat creation. This approach has been informed by the findings of ES Chapter 7: Ecology and Biodiversity and associated technical appendices.

3.2. The Proposed Development seeks to follow the Step-wise Approach as detailed within the updated Chapter 6 of PPW by implementing the below steps

Step 1: Avoid

3.3. The Proposed Development avoids direct impacts on all statutory designated sites for nature conservation. No designated sites are located within the Site boundary, and the scheme has been designed to ensure no direct loss or encroachment occurs in relation to nearby designated features identified within the Environmental Statement. Within the Site, the most important green infrastructure assets comprise the broadleaved woodland blocks, the watercourse and associated riparian corridor, ponds, Purple moor-grass and rush pasture area, hedgerow network and scattered mature trees. These habitats provide the primary ecological connectivity across the Site and support protected and priority species, including Section 7 species such as bats and skylark, as well as mammals including badger, dormouse, otter and hedgehog.

3.4. The masterplan layout has been informed by ecological constraints to avoid direct impacts on higher-value habitats wherever possible. All woodland blocks are retained in situ, with the creation of buffer zones of a up minimum of approximately 10 metres (and greater in many locations) to protect woodland edges and maintain ecological function. The watercourse itself is entirely avoided, with development infrastructure set back to preserve the integrity of the riparian corridor as a continuous wildlife movement route.

3.5. All ponds within the Site are retained and protected within the development layout, with the exception of Pond 1, which was confirmed as having been infilled prior to the updated walkover survey in February 2026. Retained ponds will remain integrated within the Site's green infrastructure network and buffered from development infrastructure**.**

3.6. Areas of Purple moor-grass and rush pasture are retained and protected within the scheme, recognising their higher ecological value relative to surrounding agricultural land. Solar arrays and associated infrastructure are focused primarily within arable land and modified grassland of lower ecological value, and within parts of other neutral grassland where impacts cannot be wholly avoided.

3.7. Known badger setts are avoided within the layout, with appropriate buffer zones maintained in accordance with best practice guidance. While construction activity will occur within the buffer of one sett, the sett itself will not be disturbed, and precautionary measures will be implemented through the CEMP to prevent harm to badgers.

3.8. Within the Site, trees identified as having potential to support roosting bats will be subject to further survey and assessment, and in the interim will be fully retained and protected within the layout. No works will be undertaken to these features unless and until appropriate surveys confirm impacts can be avoided or appropriately mitigated in accordance with licensing requirements.

Step 2 Minimise

3.9. Where impacts on green infrastructure assets cannot be entirely avoided, the scheme has been designed to minimise effects through careful siting of access points, cable routes, inverter stations and internal tracks.

3.10. Localised losses of hedgerows and limited sections of the riparian corridor are restricted to small widening of existing entrances and narrow crossing points required for underground cabling. These interventions have been designed to be as narrow as practicable to retain overall habitat connectivity and minimise fragmentation.

3.11. Temporary disturbance to limited areas of other neutral grassland may occur during construction to facilitate installation of infrastructure; however, these areas will be reinstated following works. Significant portions are retained within the Site and will be enhanced as part of the GI strategy.

3.12. A limited number of trees will be removed where necessary for access and infrastructure, with impacts minimised through alignment of tracks and avoidance of mature woodland blocks.

Step 3: Mitigate

3.13. Potential impacts arising during construction and operation will be mitigated through the implementation of a Construction Environmental Management Plan (CEMP), secured by planning condition. The CEMP will include pollution prevention and surface water management measures, sensitive methods of working, protection of retained habitats and buffer zones, and precautionary measures for protected and priority species.

3.14. Ecological mitigation measures form an integral part of the proposals, including the retention of woodland, hedgerows, ponds and riparian habitats, incorporation of native planting to strengthen habitat connectivity, and the maintenance of dark corridors along hedgerows and the riparian corridor to safeguard bat commuting and foraging routes.

3.15. Green infrastructure features such as habitat buffers, grassland creation areas and wetland enhancements have been located outside higher-value habitats and woodland edges, ensuring that ecological function is maintained while delivering additional biodiversity benefits across the Site.

3.16. Invasive non-native species will be managed through appropriate mitigation measures to prevent spread and safeguard the integrity of retained habitats and green infrastructure assets. Recorded stands of Japanese knotweed will be subject to a site-specific management strategy, including the establishment of buffer zones, biosecurity controls during construction, and treatment and/or removal by suitably qualified contractors in accordance with best practice guidance and relevant legislation.

Step 4 Compensation

3.17. Unavoidable losses of lower-value agricultural habitats, limited sections of hedgerows, small areas of riparian vegetation and scattered trees are compensated through a comprehensive programme of green infrastructure creation and enhancement, as illustrated on the Landscape Masterplan (see Appendix 1).

3.18. The compensation and enhancement strategy is designed to strengthen landscape connectivity, improve habitat condition and diversity, and deliver long-term biodiversity benefits in accordance with PPW12 objectives. Key measures include:

3.19. **Woodland creation and tree planting**

- Creation of areas of native low to mid-level biodiversity planting, including approximately 20 metre deep planted buffers along higher ground and adjacent to Public Rights of Way to the north of the Site, providing landscape screening, habitat diversity and enhanced ecological connectivity;
- Native planting to reinforce existing woodland edges and strengthen vegetation associated with the riparian corridor;
- Occasional large-scale native tree planting along Site boundaries and adjacent to Public Rights of Way to filter views, increase canopy cover and enhance habitat structure; and.
- Replacement of trees removed as part of the development at a minimum ratio of 3:1, delivering a net gain in tree cover and long-term structural diversity.

3.20. **Hedgerow restoration and creation**

- Infill planting of existing hedgerows across the Site at approximately a 30 percent infill rate to address gaps and improve habitat continuity;
- Extension of existing hedgerows to strengthen ecological connections between woodland blocks, ponds and the riparian corridor;
- Height management and reinforcement of key hedgerow sections to improve screening while maintaining permeability for wildlife movement; and
- Creation of new native hedgerows where required to further enhance connectivity and define the Site's green infrastructure network.

3.21. **Grassland enhancement and creation**

- Management and enhancement of existing rush pasture to function as a dedicated skylark mitigation area

- Creation of tussocky grassland and wildflower-rich meadow habitats using appropriate native seed mixes (such as Emorsgate EM10 Tussock Meadow Mix or similar) to increase structural diversity and invertebrate value

- Establishment of species-rich meadow grassland across lower-value agricultural land using grazing meadow mixes (such as Emorsgate EM2 General Purpose Meadow Mix or similar) to replace and enhance areas of arable and modified grassland

- Retention and enhancement of areas of neutral grassland alongside new grassland creation to deliver a connected mosaic of open habitats

3.22. **Riperian corridor enhancement**

- Strengthening of the riparian corridor through buffering with native woodland and grassland planting;

- Retention and enhancement of natural vegetation along the watercourse to improve habitat quality, connectivity and hydrological function; and

- Sensitive integration of crossing points for underground cabling to maintain ecological continuity.

3.23. **Ponds and wet features**

- Retention of all existing ponds within the Site (with the exception of Pond 1 which has been infilled prior to the updated walkover survey);

- Protection and enhancement of pond margins through native planting and habitat buffering to improve freshwater habitat networks

3.24. **Species-specific enhancements**

- Delivery of skylark mitigation areas through targeted management of rush pasture and tussocky grassland habitats;

- Maintenance of dark corridors along hedgerows, woodland edges and the riparian corridor to support bat commuting and foraging; and

- Installation of bird and bat boxes within retained trees and woodland edges to provide additional nesting and roosting opportunities.

3.25. Collectively, these compensation and enhancement measures transform areas of lower-value agricultural land into a diverse and connected green infrastructure network, delivering improvements in habitat extent, condition and ecological resilience across the Site.

3.26. The strategy provides long-term biodiversity benefits while strengthening landscape character, climate resilience, ecosystem services and ecological connectivity in accordance with the objectives of Planning Policy Wales Edition 12.

3.27. The proposed development has recognised the need to achieve a **Net Benefit for Biodiversity** from the outset, with green infrastructure embedded within the site layout and Landscape Masterplan. Progression to Step 4 of the Step-wise Approach is justified given the unavoidable loss of lower-value habitats and limited tree features, which would otherwise continue to offer limited ecological function without targeted enhancement and management.

3.28. Enhancements have been incorporated into the development design to benefit a range of species, while also improving habitat condition, structural diversity and ecological connectivity within the wider urban landscape.

3.29. The proposed ecological enhancements fit with the Diversity, Extent, Condition, Connectivity and Aspects of ecosystem resilience and adaptability (DECCA) Framework[3] by:

1. **Diversity:** Ecological diversity across the Site will be significantly increased through the creation of new native broadleaved woodland, restoration and infilling of hedgerows, enhancement of the riparian corridor, and the establishment of other neutral grassland, tussocky grassland and enhanced purple moor grass habitats. These measures will introduce greater botanical and structural diversity than is currently present within intensively managed agricultural land, providing a wider range of resources for birds (including skylark), bats, invertebrates and mammals.

2. **Extent:** The extent of semi-natural green infrastructure across the Site will be expanded through the conversion of lower-value arable land and modified grassland into higher-quality grassland habitats, alongside new tree planting and habitat planting associated with landscape buffers and boundary features. Collectively, these measures increase the overall area of functional habitat and strengthen the Site's contribution to the wider landscape-scale green infrastructure network.

3. **Condition:** Habitat condition will be improved through targeted enhancement of existing features, including hedgerow restoration, riparian corridor buffering, pond margin protection and management of purple moor grassland for biodiversity benefit. Newly created habitats will be supported by appropriate establishment and long-term management regimes, secured through the planning process, to ensure favourable ecological condition is achieved and maintained.

4. **Connectivity:** Ecological connectivity will be maintained and enhanced through the retention of all woodland blocks, the watercourse and associated riparian corridor, and the majority of the hedgerow network, together with new hedgerow planting, woodland buffers and grassland corridors. These measures will strengthen movement routes for wildlife, particularly for bats, birds and riparian species, and improve linkage between habitats within the Site and the surrounding rural landscape.

5. **Resilience and adaptability**: Ecosystem resilience and adaptability will be supported through increased habitat diversity, expansion of woodland and tree cover, and the

[3] Garrett HM., and Ayling SC. (2021) Terrestrial and freshwater Resilient Ecological Networks: a guide for practitioners in Wales. 43 pp. NRW Report No. 483 Natural Resources Wales. Dolgellau. Available at: https://cdn.cyfoethnaturiol.cymru/media/693356/resilient-ecologicalnetworks-practitioner-guide.pdf?mode=pad&rnd=132612537900000000

creation of semi-natural grassland and riparian habitats across the Site. These measures will improve the Site's capacity to support wildlife over the long term, provide greater structural variety within the landscape, and help habitats respond to environmental change. The retention and enhancement of the riparian corridor and purple moor grassland areas will also contribute to local hydrological function and habitat stability

Section 4: Conclusions

4.1. In proportion to the scale of the Site and its rural agricultural context, the proposed solar photovoltaic development and associated green infrastructure measures are considered appropriate and proportionate. The Site currently comprises predominantly intensively managed arable land and modified grassland, with ecological value and connectivity largely associated with boundary habitats, woodland blocks, ponds and the riparian corridor. Without targeted enhancement and management, much of the Site would continue to offer limited ecological function within the wider agricultural landscape.

4.2. The proposed green infrastructure strategy, including native tree and low- to mid-level biodiversity planting , hedgerow restoration and infilling, enhancement of the riparian corridor, retention and enhancement of ponds, creation of species-rich and tussocky grassland habitats, targeted skylark mitigation measures, and replacement tree planting at a minimum ratio of 3:1, will deliver significant biodiversity enhancements and strengthen landscape-scale ecological connectivity.

4.3. Collectively, these measures embed green infrastructure within the Site layout from the outset and support the objectives of Planning Policy Wales (Edition 12) and Section 6 of the Environment (Wales) Act 2016, demonstrating that the Proposed Development is capable of delivering a Net Benefit for Biodiversity while maintaining and enhancing ecosystem resilience.

Appendix 1: Landscape Masterplan

KEY

- Site boundary
- Existing vegetation to be retained – Root Protection Area indicated by pink dashed line
- Existing hedgerow to be infilled at approx. 30% infill rate
- Existing vegetation to be removed
- Existing overhead line
- Grid connection route
- Public Right of Way (PRoW)
- Bridleway
- Existing rush pasture to be managed as skylark mitigation area
- Proposed native tree
- Proposed native woodland planting
- Proposed native hedgerow planting
- Grazing mix – ie. Emorsgate EM2 Standard General Purpose Meadow Mix, or similar
- Tussocky grassland with wildflower – ie. Emorsgate EM10 Tussock Meadow Mix, or similar
- Tussocky grassland with wildflower – ie. Emorsgate EM10 Tussock Meadow Mix, or similar – to be managed as potential skylard mitigation area
- Proposed perimeter security fencing
- Proposed solar panels
- Proposed crushed stone access road
- Proposed inverter / transformer
- Proposed O&M spares and storage

GREAT HARMESTON – LANDSCAPE MASTERPLAN

N 0 125 250 m | PEGASUSGROUP.CO.UK | TEAM/DRAWN BY: VK | APPROVED BY: IBD | DATE: 24/02/2026 | SCALE: 1:2500@A0 | DRWG: P24-1037_EN_14 | CLIENT: ARISE RENEWABLE ENERGY UK LTD |

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